

REMARKS

The 15 January 2004 official action addressed claims 1-30. Claims 1, 12, 16, 21 and 25 are amended. Claims 1-29 are pending for reconsideration.

1. Overview of amendmentsClaim amendments

Independent claim 1 has been amended editorially.

Independent claims 12 and 21 have been amended to clarify that a user indicates that category of a hierarchy, to which the user has navigated through the hierarchy using navigation commands, is of interest to the user.

Claims 16 and 25 have been amended to make their language consistent with claims 12 and 21.

No new matter is added.

2. Response to objections and rejectionsPrior art rejections

Claims 1-29 were rejected under 35 USC §102(e) as being anticipated by Lee (U.S. 6,483,428).

The examiner's conclusion of anticipation rests on numerous allegations that are easily shown to be wrong. There is no reasonable basis upon which to allege that the claims are anticipated by Lee and the rejections must be withdrawn.

Independent Claims 1, 12, 21***hierarchy of subject matter categories***

The official action addresses this feature in claim 12 as follows:

Claim language	Examiner comment	Cited passage
receiving user navigation commands for navigation among predefined subject matter categories, wherein the subject matter represented by each of said predefined categories is defined such that the predefined categories together form a hierarchy comprising at least a set of top-level categories, respective sets of first level sub-categories each corresponding to and encompassed by a top-level category, and respective sets of second level sub-categories each corresponding to and encompassed by a first level sub-category, and wherein said navigation is performed in accordance with said hierarchy	“Lee also discloses that the subject matter represented by each of said predefined categories is defined such that the predefined categories together form a hierarchy comprising at least a set of top-level categories, respective sets of first level-sub categories each corresponding to and encompassed by a top level category, and respective sets of second level sub-categories each corresponding to and encompassed by a first level sub-category (see Column 4, Lines 5-8 for three levels of ranking).”	Col. 4, lines 5-8: “So, records satisfying both criteria would be ranked highest, records satisfying only one criterion would be ranked second-highest, and records satisfying neither criterion would be ranked last.”

The official action is in error for the following reasons:

- 1) The cited passage relates to database records, whereas the claim specifies subject matter categories:

The full paragraph containing the cited passage begins at the bottom of col. 3 and states that the “records” referred to in the cited passage are database records that are retrieved based on a search and then ranked. This paragraph is contained within the summary of the invention, which explains that the invention relates to a user interface for a search engine that provides a physical metaphor for search queries (see Summary, first paragraph, Col. 1). The cited passage describes the ranking of search results (i.e. records retrieved in the search).

The claim describes the manners in which subject matter categories are organized to provide a subject matter categorization scheme that is used to describe the attributes of, e.g., television programs or program segments.

The official action equates records obtained from a database with categories used to describe television programs. The person of ordinary skill would not equate these two concepts. The position is unreasonable, and because all rejections of all independent claims rely on this position, those rejections should be withdrawn.

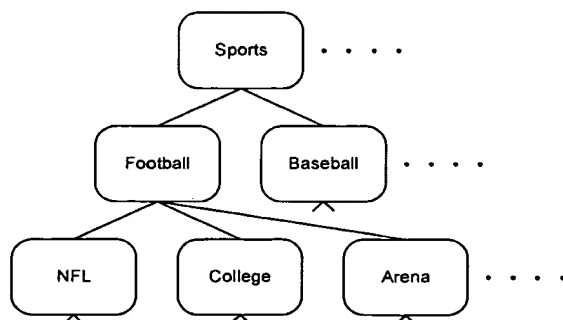
2) The cited passage relates to ranking of search results, whereas the claim relates to a hierarchy of subject matter categories

The rejection indicates that the examiner equates a "hierarchy of subject matter categories" with anything that involves any type of order among any type of object.

The term hierarchy has a specific meaning that is spelled out in the claim and that must be applied in examination of the claim. The claim language is clear:

wherein the subject matter represented by each of said predefined categories is defined such that the predefined categories together form a hierarchy comprising at least a set of top-level categories, respective sets of first level sub-categories each corresponding to and encompassed by a top level category, and respective sets of second level sub-categories each corresponding to and encompassed by a first level sub-category, and wherein said navigation is performed in accordance with said hierarchy

Applicant has previously supplied the following illustration of an example of a subject matter category hierarchy having the required features:



Each of the terms identifies a subject matter category. The hierarchical relationship follows from the subject of each category. For example, Football, Baseball, etc., are categories encompassed by the category Sports. NFL, College, Arena, etc., are categories encompassed by the category Football. Thus there is a hierarchical relationship among the categories – categories are contained within other categories, which are in turn contained within other categories, and so on up to the top level categories.

The term “hierarchy” must be interpreted in this manner. The examiner is not free to assign any meaning to this term. Applicant has submitted herewith a document showing various dictionary definitions for “hierarchy” obtained from Dictionary.com. This shows that in the abstract, the term hierarchy can have many meanings. However, as stated recently by the Court of Appeals for the Federal Circuit:

“The specification must be examined in every case to determine which of the possible dictionary meanings is consistent with the use of the claim term in the context of the claims and the written description....” *International Rectifier Corp. v. IXYS Corp.*, ___ F.3d ___, 2004 WL 528425 (Fed. Cir. 2004).

From an inspection of the specification, particularly Figure 8 and the corresponding text, it is clear that the appropriate meaning of the term hierarchy is the one highlighted in Applicant’s submission, namely:

“An organization with few things, or one thing, at the top and with several things below each other thing. An inverted tree structure. Examples in computing include a directory hierarchy where each directory may contain files or other directories; a hierarchical network (see hierarchical routing); a class hierarchy in object-oriented programming.”

This meaning is reinforced by the claim language itself, which specifically requires multiple levels of categories, with categories being encompassed by higher level categories in a hierarchical structure.

The passage of Lee cited in the rejection merely refers to the ranking of three search results (records) as either highest, second highest, or last. These rankings are not subject matter categories, and the records do not have any hierarchical relationship – such a relationship would require a lower ranked record to be a sub-set of a higher ranked record, and there is no reason to believe that this is the case in Lee.

The person of ordinary skill would not equate ranked search results with a hierarchical arrangement of subject matter categories. The position taken in the official action is unreasonable, and because all rejections of all independent claims rely on this position, those rejections should be withdrawn.

navigation commands

The official action addresses this feature as follows:

Claim language	Examiner comment	Cited passage
wherein said category tool is responsive to user navigation commands to provide navigation among said predefined categories in accordance with said hierarchy.	"Lee also discloses that the category tool is responsive to user navigation commands to provide navigation among said predefined categories in accordance with said hierarchy (see Column 2, lines 34-36 discloses an overview mode for letting the user interact with the search and profiling results to select a program)."	Col. 2, lines 23-36 (<i>the cited passage is italicized</i>): The UI generates three environments or worlds: a search world, a profiling world, and an overview world. Assuming an EPG environment, in the search world, the user enters, saves, and edits filtering and sorting criteria (time of day, day of week, genre, etc.). In the profiling world, the user generates and modifies explicit (and some types of implicit) user profiles. Explicit profiles are the set of likes and dislikes a user has entered to represent his preferences. <i>Each can be selected from lists of criteria such as genre (movies, game shows, educational, etc.), channel (ABC, MTV, CSPAN, etc.), actors (Jodie Foster, Tom Cruise, Ricardo Bernini, etc.), and so on.</i> In the overview world, the user views and selects among the results of the search, which is a result

		of the sorting, filtering, and profiling information.
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The claim language refers to navigation among subject matter categories in accordance with their hierarchical arrangement. In other words, from a given category, the user can move to other categories within the same level, or up to a higher level category that encompasses that category, or down to a lower level category encompassed by that category, in accordance with the specific organization of the hierarchy.

The cited passage refers to selection of criteria from lists. Assuming for argument that these criteria can be equated with subject matter categories, the cited passage still fails to meet the features required by the claim. First, the criteria are described by Lee as being arranged in a list, and looking at the example criteria that Lee provides, it is clear that these criteria are not structured in a hierarchical fashion in which broader criteria encompass narrower criteria. From the discussion above, it is believed to be clear that a list is not a hierarchy. The lists referred to in the cited passage are shown, e.g., in Figure 8, where they are depicted as rings, in other words, lists that loop from bottom back to top. No hierarchical structure is illustrated.

Selection of criteria from lists is not the same as navigation among categories in a hierarchy. With a list, one can go between the criteria in list, or (presumably) move to another unrelated list. Navigation within a hierarchy involves movement among categories within a given level, or movement to a category of a higher level that encompasses the current category, or movement to a category of a lower level that is encompassed by the current category. These features are not available or possible in a system that simply uses lists of criteria. Therefore the cited passage does not reasonably correspond to the claimed receipt of navigation commands for navigating among categories of a subject matter category hierarchy.

For these reasons, independent claim 12 and its corresponding independent claims 1 and 21 cannot be rejected over Lee.

Claims 3, 14, 23***preference scores indicating an amount of viewer interest in subject matter represented by keyword***

The official action addresses claim 3 in the following manner:

Claim language	Examiner comment	Cited passage
<p>The user interface claimed in claim 2, wherein said input received by said keyword tool comprises keyword preference scores indicating an amount of viewer interest in subject matter represented by a specified keyword.</p>	<p>"Lee discloses that input received by said keyword tool comprises keyword preference scores indicating an amount of viewer interest in subject matter represented by a specified keyword (see step S140 in figure 18 for identifying common terms using the keywords and then ranking the entire list in step S145)."</p>	<p><i>(The following passage describes the cited processing steps):</i></p> <p>Referring to FIG. 18, a user accesses the records of the database directly or by searching....</p> <p>If the user chooses to simply select records without searching, the word list can be formed from multiple selections and common words culled from this list in a manner similar to that for searches. In step S110, one or more records are selected by the user. Step S110 can be reached directly without searching or by going through the steps S100-S130 first and then through S150 again to arrive at S110 to choose one or more records from the search results. In step S135, the user adds words from the selected record or records to the word list. To identify frequency of hits data on descriptors, it desirable to have multiple records, so each selection is added to a single list and the frequency data derived from the combined list, which covers multiple selection iterations. Alternatively, if a large number of records are selected at once, frequency data can be obtained from these selections. The addition of words to the list may involve the same filtering and sorting steps discussed above with respect to the words culled from the search results. <i>In step S140, words with a low frequency of hits may be filtered out of the list. In step S145, all the terms are ranked according to the various criteria discussed above.</i> Note that the word lists derived from retrieved records from a search and those derived from</p>

		selected records can be combined in a single list.
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The claim language refers to entry by the user of a score that indicates how much interest a viewer has in subject matter defined by a keyword. For example, for a given keyword, the user could enter 10 to indicate high interest, or 5 to indicate moderate interest.

The cited passage refers to a part of a process by which a user creates a list of keywords that can be used as "criteria" for searching a database. The user may generate the list by searching the database and adopting words associated with the retrieved records (steps 115-130, not cited). The user may alternatively generate the list by directly accessing records (steps 110-135). Words are filtered out of the list based on their frequency (step 140, cited), and then the words are ranked (step 145, cited). The specification states that ranking is done according to "the various criteria discussed above" (col. 15, lines 4-7). This refers to the passage at col. 14, lines 31-38, which states that ranking is based on "frequency of occurrence and significance (e.g., title words are more significant the (sic) words from the description or the content of the record itself). Other criteria may be used to selecting and ranking the words added to the list, for example, the goodness of fit between the search criteria and the retrieved records."

In other words, the cited steps describe an automated process of ranking the importance of keywords based on the records that they are already associated with. In contrast, the claim requires that a user interface enables the user to specify a score that indicates the user's degree of interest in a keyword. One of ordinary skill would not equate an automated keyword ranking process with a user interface that requires the user to specify a score for a keyword. Therefore the cited portions of Lee do not correspond to the features required by claims 3, 14 and 23.

Claims 5, 15, 24

qualified keyword

The official action addresses claim 5 in the following manner:

Claim language	Examiner comment
The user interface claimed in claim 1, further comprising a qualified keyword tool for receiving input from a user indicating that a keyword specified by the user represents subject matter of interest to the viewer only when that subject matter is also represented by a specified one of said predefined categories.	"Referring to claim 5, see rejection of claim 2. The examiner notes that a keyword and a qualified keyword is still a "keyword". The term "qualified" does not limit this limitation."

The claim refers to a tool provided by a user interface that allows the user to link a keyword to a category, so that the keyword is only significant for subject matter described by a corresponding category.

For example, consider the keyword "giants." By itself, this keyword could apply to programs involving the San Francisco Giants (baseball), the New York Giants (football), or other associated with the word "giants." Therefore, if "giants" is used as a keyword in a viewer profile, programs of all three types would be identified as being of interest to the viewer, even though the viewer might only be interested in the baseball team. To address this issue, the claimed user interface allows the user to create a "qualified" keyword that is only effective with respect to programs falling within a specified category. For example, if the keyword "giants" is defined as a qualified keyword associated with the category "baseball," then the term will match programs about the San Francisco Giants but not the New York Giants.

The examiner dismisses the term "qualified" and states that it does not limit the term "keyword." The examiner ignores the remainder of the claim which specifies that a qualified keyword tool is provided for "receiving input from a user indicating that a keyword specified by the user represents subject matter of interest to the viewer only when that subject matter is also represented by a specified one of said predefined categories."

The examiner may not ignore limitations of the claims. The claim cannot be rejected unless all limitations are found in the prior art. There is nothing in Lee that enables a user to qualify a keyword by associating that keyword with a specified category. Therefore claim 5 and corresponding claims 15 and 24 cannot be rejected over Lee.

Claims 6, 16, 25***qualified keyword***

The official action addresses claim 6 in the following manner:

Claim language	Examiner comment
The user interface claimed in claim 5, wherein said qualified keyword tool further receives input comprising qualified keyword preference scores indicating an amount of viewer interest in subject matter represented by specified qualified keywords.	"Referring to claim 6, see rejection of claim 3. The examiner notes that a keyword and a qualified keyword is still a "keyword". The term "qualified" does not limit this limitation."

The claim refers to a tool provided by a user interface that allows the user to create a qualified keyword, as described above, and that further allows the user to specify a score that indicates a viewer's degree of interest in the subject matter of the qualified keyword.

As discussed above with respect to claim 5, Lee does not practice or contemplate the creation of qualified keywords. As discussed above with respect to claim 3, Lee does not practice or contemplate that a user specifies scores for keywords.

The examiner cannot reject a claim by refusing to acknowledge its limitations. There is nothing in Lee that enables a user to specify a score for a qualified keyword. Therefore claim 6 and corresponding claims 16 and 25 cannot be rejected over Lee.

Claims 9, 18, 27***alerts per time period tool***

The official action addresses claim 9 in the following manner:

Claim language	Examiner comment	Cited passage
The user interface claimed in claim 1, further comprising an alerts per time period tool for receiving input from a user specifying a maximum number of alerts to be	"Referring to claim 9, Lee discloses an alert per time period tool for receiving input from a user specifying a maximum number of alerts to be generated within a given	Col. 3, lines 23-34 (<i>the cited portions of the following paragraph are italicized</i>): <i>An example of this type of profile information is MbTV, a system that learns viewers' television watching preferences by monitoring their</i>

generated within a given time period using said viewer profile.	time period using said viewer profile (see Column 3, lines 31-34 for alerting a viewer of upcoming programming event, also note Column 3, lines 23-25 for monitoring the user's viewing pattern (i.e. viewer input))."	<i>viewing patterns.</i> MbTV operates transparently and builds a profile of a viewer's tastes. This profile is used to provide services, for example, recommending television programs the viewer might be interested in watching. MbTV learns about each of its viewer's tastes and uses what it learns to recommend upcoming programs. <i>MbTV can help viewers schedule their television watching time by alerting them to desirable upcoming programs, and with the addition of a storage device, automatically record these programs when the viewer is absent.</i>
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The claim language refers to a tool provided in the user interface that allows the user to enter the number of alerts that the viewer wants to receive within a given time period concerning upcoming programs that match the viewer's profile. For example, the viewer may specify that he wants to receive no more than two alerts per hour concerning upcoming programs.

The cited passages recognize that a viewer may be alerted to upcoming programs and that this may be based on interests gleaned from viewing habits. There is nothing in the cited passages or in the rest of Lee that relates to how many of these alerts should be generated in a given period of time, or to allowing the user to specify how many alerts should be generated in a given period of time. The person of ordinary skill would not equate the general concept of generating alerts with the specific practice of letting the user specify how many to generate in a given period of time. Therefore claim 9 and corresponding claims 18 and 27 cannot be rejected over Lee.

Claims 10, 19, 28

alert time advance tool

The official action addresses claim 10 in the following manner:

Claim language	Examiner comment	Cited passage
<p>The user interface claimed in claim 1, further comprising an alert time advance tool for receiving input from a user specifying, for a programming event determined to be of interest using said viewer profile, an amount of time prior to the programming event that an alert for the programming event is to be provided.</p>	<p>"Referring to claim 10, Lee discloses an alert time advance tool for receiving input from a user specifying, for a programming event determined to be of interest using said viewer profile, an amount of time prior to the programming event that an alert for the programming event is to be provided (see Column 3, lines 23-48 for alerting the viewer of an upcoming programming according to a viewer profile). Note that at Column 3, lines 31-34, the alert is for an "upcoming program", therefore the user inherently alerted <u>before</u> the program will be viewed"</p>	<p>Col. 3, lines 23-48: An example of this type of profile information is MbTV, a system that learns viewers' television watching preferences by monitoring their viewing patterns. MbTV operates transparently and builds a profile of a viewer's tastes. This profile is used to provide services, for example, recommending television programs the viewer might be interested in watching. MbTV learns about each of its viewer's tastes and uses what it learns to recommend upcoming programs. MbTV can help viewers schedule their television watching time by alerting them to desirable upcoming programs, and with the addition of a storage device, automatically record these programs when the viewer is absent. MbTV has a Preference Determination Engine and a Storage Management Engine. These are used to facilitate time-shifted television. MbTV can automatically record, rather than simply suggest, desirable programming. MbTV's Storage Management Engine tries to insure that the storage device has the optimal contents. This process involves tracking which recorded programs have been viewed (completely or partially), and which are ignored. Viewers can "lock" recorded programs for future viewing in order to prevent deletion. The ways in which viewers handle program suggestions or recorded content provides additional feedback to MbTV's preference engine which uses this information to refine future decisions.</p>

The claim language refers to a tool in the user interface that allows the user to enter the amount of time in advance of a program that the user wants to be alerted of that program when the program is found to match the viewer's profile. For example, the viewer may specify that he wants to be alerted one minute in advance, five minutes in advance, etc.

The cited passages recognize that a viewer may be alerted to upcoming programs and that this may be based on interests gleaned from viewing habits. There is nothing in the cited passage or in the rest of Lee that relates to how far in advance such alerts should be provide, or to allowing the user to specify how far in advance the alerts should be generated. The person of ordinary skill would not equate the general concept of generating alerts with the specific practice of letting the user specify how far in advance the alerts should be provided. Therefore claim 10 and corresponding claims 19 and 28 cannot be rejected over Lee.

The foregoing comments address all independent claims and selected features recited in dependent claims, and demonstrate that the claims may not be rejected over the cited references.

By separate document, the undersigned hereby requests a telephone conference with the examiner and the examiner's supervisor to discuss the issues addressed in this reply and to ascertain what issues, if any, stand in the way of allowance.

Respectfully submitted,

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